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ABSTRACT

This paper discusses finding a balance for the use of tracking in school that benefits both high and low achieving students. Tracking can arguably be traced to the pervasive mythology of biological determinism and the advent of IQ testing. As time passed, schools increased the use of testing to separate students into different ability levels, but this practice has come under considerable criticism. In 1985 J. Oakes published "Keeping Track," a scathing condemnation of tracking that clarifies why tracking interferes with a quality education for all students. How to achieve excellence and equity is the dilemma for educators today. Oakes has posited that it is possible to achieve both while eliminating tracking and ability grouping. Research on the prevalence and influence of tracking has shown that students are often placed in classes by racial and ethnic subgroups. In addition, data such as that from the National Education Longitudinal Study of 1988 has indicated that there is a strong correlation between socioeconomic status and academic track as well as between race/ethnicity and track. There are indeed strong arguments to do away with tracking altogether, but some ability grouping may be advantageous. Detracking could involve grouping students by specific learning tasks, with attention to avoiding biases and traditional stereotypes. The efforts of Massachusetts to eliminate the general track show that excellence and equity can be brought into better balance with systemic change involving many aspects of education. Other areas, including Milwaukee (Wisconsin), have used the EQUITY 2000 program to deal with mathematics and science education through counseling, community, and content support for students. Given the current state of education, eliminating the improper tracking of students is essential. (Contains 8 endnotes and 37 references.) (SLD)

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The Challenge of Detracking:
Finding the Balance Between Excellence and Equity

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"Educators attempting to detrack their schools....confront not only logistical problems of restructuring but also the deeply held beliefs of colleagues, parents, and students about intelligence and privilege that legitimize tracking, especially in racially and socioeconomically mixed schools." (Jeannie Oakes, 1997)

Introduction

There is an old mid-western saying: "The prairie would be silent if only the most talented birds sang." This traditional wisdom is parallel to the sentiments that continue to push the agenda of school reform that includes detracking. The problem that schools are faced with is that such reform is deceptively simple. We could summarily remove tracking from schools, but there are issues and political dynamics concerning the potential harming of high achievers that will have to be dealt with. Or we could leave tracking programs in place, but that situation tends to harm low achievers. The likely solution is somewhere between these extremes. The problem is how to negotiate a compromise that will benefit both low and high achieving students. The working out of this problem is the subject of this paper.

Several terms are frequently used in detracking discussions. The term "excellence" is commonly used today as a rallying cry to improve student achievement and "equity" refers to the access and participation in a quality education for all students. These terms tend to engender a false dualism in that many seem to speak in terms of having either excellence or equity, but not both. However, educators and researchers, such as Jeannie Oakes, posit that excellence in education could be achieved concurrently with equity. She suggested that schools can strive for excellence and equity through the elimination of tracking and ability grouping. Detracking reforms, she argues, can be an effective strategy for promoting both excellence and equity.[1]

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[1] Oakes, J., *Keeping Track: How Schools Structure Inequality*. New Haven: Yale University Press, 1985.

Background of Tracking

Tracking arguably can be traced back to the pervasive mythology of biological determinism and the advent of IQ testing.[1] Although the myths of determinism reach far back into our intellectual roots as a culture, intelligence testing is a comparably recent phenomenon. Just before World War I, Alfred Binet's intelligence testing was embraced by American psychologists and the burgeoning armed forces in this country. When young men enlisted in droves in 1917, the military used standardized IQ tests to sort potential officers from enlisted men, according to perceived mental capabilities. Shortly thereafter, schools began to test and track students on the premise that the economy required workers with different knowledge and skills.

As time passed, schools increased the use of testing to separate students into different ability levels as a matter of policy. Indeed, as the *Brown* decisions of the 1950s began to affect policy via the civil rights marches in the 1960s and busing in the 1970s, schools increasingly relied on standardized testing to sort and select students. In the 1980s, the policy of tracking began to come under scrutiny. With the succession of publications that included *A Nation at Risk* (1983), *A Nation Prepared* (1985), and *Workforce 2000* (1987), it became clear that the world was changing and that America's educational system needed to change with it. The message inherent in this research was that in order for America to stay strong and compete in the global economic markets of the future, all students need to have access to a quality education through equal educational opportunity. This message led to doubts about a number of educational policies, among them tracking and ability grouping.

In 1985, Jeannie Oakes published *Keeping Track*, a scathing condemnation of tracking in the schools. Oakes described the problem of tracking, i.e., why it was interfering with a quality education for many students, and called for a halt in the practice. Since its publication, Oakes and like-minded educators have been contributing to a gradual change in the policy and practice of tracking and ability grouping in the

public schools. Although the task of achieving a quality education for all students is far from complete, progress continues to be made.

Detracking Terminology

Several terms need to be clarified before the discussion of tracking and ability grouping can proceed. The term "excellence" is commonly used today as a rallying cry to improve student achievement in mathematics and science; in this paper, it simply refers to attaining high-quality educational outcomes. A second term used frequently in discussions of education reform is "equity"--meaning that *all* students can and do achieve these high quality outcomes. In this paper, we are particularly concerned with how detracking can be used as a strategy to achieve excellence and equity in mathematics and science.

Two additional terms, "tracking" and "ability grouping," are clarified by researcher Adam Gamoran: "tracking" refers to broad, programmatic divisions, difficult to reverse, that separate students for <u>all</u> academic subjects. High school tracks divide students into academic, general, and vocational programs, while elementary schools "track" students by dividing them into separate classes for the entire day. "Ability grouping" refers to divisions among students for particular subjects, such as special class assignments for mathematics or within-class groups for reading.[2] In theory, ability grouping is a more transitory or variable condition, varying by content area and subject to modification over the course of an academic year or, at a minimum, from year to year.

Detracking Issues

One of the challenges for educators and parents is how to accomplish both excellence and equity in their own districts, schools, and classrooms. Oakes posits that detracking reforms such as eliminating tracking and ability grouping can be effective strategies for promoting both excellence and equity.[3] As Gamoran maintains, tracking and ability grouping rarely benefit overall achievement, but can contribute to inequality

of achievement.[4] That is, as students in high-track groups do well, low-track students fall farther behind.

Although on one level the problems seem obvious and the solutions simple, grouping poses challenges to all constituents. The next section of the paper will explore what the research reveals about how widespread tracking is and the effects of tracking on specific categories of students.

Data Showing the Prevalence and Impact of Tracking

Studying the Rockford Public Schools in Illinois and the San Jose Unified School District in California in 1993, Oakes found that both school systems had created racially imbalanced classes at all three levels--elementary, middle, and senior high--and that, ironically, students were not "tracked" by ability, even though the schools' own rhetoric supported this practice. Racial/ethnic differences rather than achievement differences provided the primary characteristics differentiating so-called higher and lower "track" classes. White students (and Asian Americans, in San Jose) were consistently overrepresented and African American and Hispanic students were consistently underrepresented in high-ability classes in all subjects.[5] African American and Hispanic students were consistently overrepresented while white and Asian American students were consistently underrepresented in low-ability classes in all subjects.

The fact was that classes specifically designated for students at a particular ability level actually enrolled students who spanned a very wide range of measured ability. Furthermore, while the overall average achievement score for students in the low tracks was less than the overall average score for students in the standard or accelerated tracks, the extraordinarily broad range of achievement in each of the three tracks (low, standard, and accelerated) made it clear how far these tracks were from traditional ability groups. In short, the districts' practices represented a racially motivated, rather than ability motivated, grouping that amounted to within-school segregation.

Even worse was the finding that in both school systems, African American and Hispanic students in lower track classes had fewer learning opportunities. Teachers expected less of these students and gave them less exposure to essential knowledge and skills. Lower track classes also denied African American and Hispanic students access to a whole range of resources and opportunities, including highly qualified teachers, classroom environments conducive to learning, opportunities to earn extra grade points to bolster grade point averages, and courses that qualify students for college entrance and a wide variety of careers as adults.

Finally, and perhaps worst of all, the academic achievement of African American and Hispanic students suffered over time. In Rockford, the achievement gap (the difference in average group achievement scores) between white and African American students that was present in the first grade did not diminish in higher grades. To the contrary, 11th graders exhibited gaps somewhat larger than 1st graders. In San Jose, those who were placed in lower level courses--disproportionately Hispanic students--consistently demonstrated a lesser gain in achievement over time than their peers who were placed in high level courses did. These results were consistent across achievement levels: whether students began with relatively high or relatively low achievement, those who were placed in lower level courses showed fewer gains over time than students who were placed in higher level courses.

Although the study of Rockford and San Jose represents only two districts, other studies have also demonstrated that tracking is a more widespread phenomenon, and that students are often placed in courses or classes by racial/ethnic subgroups. One such study was the large-scale National Educational Longitudinal Study (NELS).[6] Examination of NELS data revealed that nationally only 14 percent of 8th grade students were enrolled in mathematics classes that their teachers characterized as mixed ability. Similarly, only 11 percent of 10th grade mathematics students in public schools across the nation were judged by their teachers to be in mixed-ability classes; for science, the corresponding figure was 12 percent (Brewer et al., 1995[7]). Unfortunately, perceived ability level all too frequently was virtually identical to racial group membership.

Table 1 presents nationally representative data from NELS that show patterns of ability group placement for African American, Asian American, Hispanic, Native American, and white middle-grade students in mathematics. These data show that the distributions of these eighth grade student populations are very different. Compared to white and Asian students, African American, Hispanic, and Native American students were significantly underrepresented in the high mathematics tracks and significantly overrepresented in the low mathematics tracks.

Table 1. Percent distribution of 8th grade racial/ethnic subgroups across ability grouped classes in mathematics

Subject and ethnicity	Ability group level				
	High	Middle	Low	Mixed	Total
Mathematics					
African American (1,051)	15%	35%	35%	16%	100%
Native American (63)	10	46	34	9	100
White (986)	35	40	15	10	100
Asian American (207)	47	30	17	6	100
Hispanic (698)	18	41	25	15	100

NOTE: Percents may not add to 100 because of rounding.

SOURCE: Braddock and Dawkins, 1993[8]

Braddock and Dawkins also analyzed the effects, for each racial group, of 8th grade ability group assignment on 10th grade curriculum track placement (table 2). Across racial/ethnic subgroups, students in the higher ability 8th grade mathematics groups were significantly more likely than students in the lower mathematics groups to express plans for entering high school college preparatory curricular programs. These effects were strongest among white 8th graders, but comparably strong effects were evident for the other racial/ethnic groups. This held true even when postsecondary educational aspirations, cumulative grades, composite achievement test scores, and key social background factors were statistically controlled.

Table 2. Curricular program enrollments of 10th grade racial/ethnic subgroups by 8th grade ability group placement

Curricular program and ethnicity	Eighth grade ability group level				Overall percentage
	High	Middle	Low	Mixed	
Academic					
African American	35%	40%	14%	11%	32%
Native American	35	30	11	23	25
White	44	32	8	16	39
Asian American	45	32	10	13	46
Hispanic	28	43	9	20	30
General					
African American	12	33	33	22	44
Native American	10	30	30	29	50
White	20	45	13	22	52
Asian American	35	40	9	16	42
Hispanic	17	47	18	19	54
Vocational					
African American	10	30	33	27	24
Native American	20	22	41	17	25
White	16	39	24	21	10
Asian American	15	31	14	40	12
Hispanic	13	32	34	21	16

SOURCE: Braddock and Dawkins, 1993

Braddock and Dawkins used results from regression analyses based on NELS base year and first followup data to show that students who experienced low 8th grade ability group placements were significantly less likely to enter high school college preparatory programs than were 8th graders who were placed in mixed-ability (heterogeneous) classes. Conversely, students who experienced high 8th grade ability group placements were significantly more likely than their mixed-ability group counterparts to enter a high school college preparatory curriculum. Overall, for example, 32 percent of African American 10th grade students in 1990 were enrolled in academic programs compared to 39 percent of white sophomores; 24 percent were enrolled in vocational education programs compared to 10 percent of white students.

Race is not, however, the only factor that has traditionally been used as a proxy for ability level. To address the role socioeconomic status (SES) plays in tracking students, we again examine data from the NELS study. Although evidence from past studies has been mixed, it is clear from the NELS data that there is a strong correlation between socioeconomic status and track as well as between race/ethnicity and track. For example, for 10th grade mathematics classes, only 14 percent of students in the lowest socioeconomic quartile are in classes judged to be above average, while almost 38 percent of those from the highest socioeconomic quartile may be found enrolled in such classes (Brewer et al., 1995).

These statistics demonstrate just how widespread and critical the situation has been for many students in America's schools. While it is tempting to suggest that the picture presented by the NELS data represents the past, research by Oakes and others suggests that the problem is far from resolved. Indeed, given the necessity for a highly educated workforce in the 21st century, the existing research shows how serious the issue is for all of us. In order to gain a deeper understanding of ways in which continuing problems are being addressed, we interviewed some leading educators who are in the forefront of reform to gain their insights into how the various problems of tracking or ability grouping are being addressed today.

Although many issues within the detracking discussion are negotiable, one tenet that is clear is that equity and excellence must co-exist. The focus of this discussion may center on what the most effective strategies may be for teaching students with different learning styles and needs. While there are strong arguments to do away with tracking altogether, some ability groupings may be advantageous.

Anne Wheelock, an educational researcher and student advocate, argues that detracking is a necessary component of successful school reform. She reports that an increasing number of schools are moving to offer both high-quality education and equal access to knowledge and opportunities, but questions about implementation remain. To begin to answer how a school can achieve both excellence and equity, we must rethink

how curricula and classes are organized and question the underlying assumptions made about various categories of students.

In questioning grouping procedures, it seems important that we look at a variety of factors. These factors concern ability learning styles and needs, and range and type of intelligences, rather than race, ethnicity, gender, or other subjective criteria that rely on stereotypes. One might claim that grouping *per se* is not "bad," but it is the *way* we group that is problematic. Wheelock agrees that we should be grouping students to lift their achievement, not to keep them from reaching their potential. That is, some grouping, particularly for remedial purposes, seems unavoidable. Ability grouping is not always done poorly, but it does seem that we often do it improperly.

Detracking could involve grouping students by specific learning tasks. For example, a student who is good in mathematics, but poor in reading, would be placed in a high mathematics track and a lower, perhaps remedial, reading class. To achieve this mixed placement, educators might use a number of indicators, rather than a general achievement level. Students, then, could be grouped according to their individual abilities in different areas, which would remove some of the stigma of being grouped in a particular way. It bears mentioning that any form of grouping leaves the door open for prejudice to creep in. That is, ability grouping of any kind can be subject to biases and traditional stereotypes, e.g., girls are better in English, while boys are better in mathematics. To condone tracking on any level, we must fortify our efforts to do it judiciously, i.e., with excellence and equity in mind.

A key element in restructuring schools for excellence and equity is constant vigilance in promoting and implementing the many steps it may take to reach that goal. The Massachusetts use of PALMS to eliminate the general track is a commendable effort, which did not happen overnight. Systemic change involves the metamorphosis of many aspects of education and, like Massachusetts, reformers must have their hands on many aspects of the learning environment in order to make excellence and equity a reality in the public schools.

Milwaukee began its detracking efforts by taking a look at expectations, beliefs, and attitudes. For more than five years, Milwaukee's teachers, guidance counselors, principals, and other educators have participated in professional development opportunities such as summer institutes, follow-up workshops, and school-based action planning to reinforce the belief that all students can succeed in rigorous, standards-based mathematics.

In many cases, school and district staff do not affect change by themselves. They enlist the help of parents, community partners, government agencies, and other constituents to eliminate tracking and invoke other policy changes that promote achievement for all students. Creating links between home and school was an important part of the reform strategy in Philadelphia and New Jersey. Many schools in these areas incorporated Family Math, Family Science, and FT^2 (Family Tools and Technology) into their community outreach programs to involve parents in their children's mathematics and science education. The National Science Foundation has also been a partner with schools to help them achieve their goals with financial and technical assistance whenever possible.

In addition, EQUITY 2000 has been employed by school districts, such as the Milwaukee Public Schools, with great success. This is one of several programs that has as its overall goal closing the achievement gap between advantaged and disadvantaged students. EQUITY 2000 is a multifaceted approach that attempts to affect every area of a child's mathematics and science education. It is a systemic effort that includes proper counseling, community, and content support for students to assist schools through the detracking process. EQUITY 2000 and other programs like the talent development schools are making headway in the struggle for achieving excellence and equity and are well worth further investigation by other school districts.

We began with a quote from Jeannie Oakes that describes difficulties of detracking. Since that first section, we have attempted to discuss ways of overcoming

those challenges. The improper tracking of students can adversely affect a large portion of school children and, given the current situation in many of our schools, changing that situation will require educators to make dramatic changes. Perhaps the greatest problem is that if we do not quickly make the necessary reform efforts, we may face unforeseen problems as we enter and proceed into the next millennium. Fortunately, some educators are taking steps in the direction of excellence and equity. We will do well to follow their lead.

ENDNOTES

[1]Oakes, J., Wells, A.S., Jones, M., and Datnow, A., (1997) "Detracking: The Social Construction of Ability, Cultural Politics, and Resistance to Reform." *Teachers College Record* 98, 3 (Spring 1997), 482-510.

[2]Gamoran, A., (1992) "Is Ability Grouping Equitable?" *Education Leadership*, pp. 11-17.

[3]Oakes, J., *Keeping Track: How Schools Structure Inequality*. New Haven: Yale University Press, 1985.

[4]Ibid.

[5]Oakes, J. (1995), "Two Cities' Tracking and Within-School Segregation," *Teachers College Record* 96, 4, 681-690.

[6]The National Educational Longitudinal Study (NELS), a nationally representative student survey conducted by the National Center for Education Statistics, provides a good picture of tracking practices. In 1988, NELS sampled more than 20,000 8th grade students in more than 100 schools. Most of these students were resurveyed in the 10th and 12th grades in 1990 and 1992. The survey contains a range of questions dealing with student academic performance, family background, attitudes, and school experiences. Eighth and tenth grade teachers were asked about a number of classroom characteristics, including whether the class each student attended was composed of students of above-average, below-average, or widely differing (heterogeneous) achievement levels relative to other students in the school.

[7]Brewer, Dominic J., Reese, Daniel J., and Argys, Laura M. (1995), "Detracking America's Schools: The Reform Without Cost?" *Phi Delta Kappan*, November Special Feature.

[8]Braddock, Jomills H., and Dawkins, Marvin P. (1993), "Ability Grouping, Aspirations, and Attainments: Evidence from the National Educational Longitudinal Study of 1988." *The Journal of Negro Education* 62,3 (Summer): 324-336.

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